

DERWENT-ACC-NO: 2001-229584

DERWENT-WEEK: 200124

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TITLE: Semiconductor device manufacture involves forming
indium
gallium phosphide layer on gallium arsenide layer and
etching indium gallium phosphide layer using hydrochloric
acid etching liquid or its aqueous solution

PATENT-ASSIGNEE: NEC CORP[NIDE]

PRIORITY-DATA: 1999JP-0198228 (July 12, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES
MAIN-IPC			
JP 2001023951 A	January 26, 2001	N/A	007 H01L 021/306

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
JP2001023951A	N/A	1999JP-0198228	July 12, 1999

INT-CL (IPC): C09K013/04, H01L021/306 , H01L021/308 , H01L033/00

ABSTRACTED-PUB-NO: JP2001023951A

BASIC-ABSTRACT:

NOVELTY - Indium-gallium phosphide (InGaP) layer is formed on gallium-arsenide layer (GaAs). InGaP layer is etched using hydrochloric acid or its acid aqueous solution etching liquid. Indium gallium arsenic phosphide (InGaAsP) layer is etched using hydrochloric acid etching liquid which contains hydrogen peroxide oxidizing agent. Etching rate for InGaAs and InGaAsP layers is the same.

USE - The method is used for manufacturing semiconductor devices.

ADVANTAGE - Base resistance is made low, etching non-uniformity is eliminated,
and n-InGaAsP layer is etched with high homologousness.

CHOSEN-DRAWING: Dwg.0/11

TITLE-TERMS: SEMICONDUCTOR DEVICE MANUFACTURE FORMING
INDIUM GALLIUM PHOSPHIDE
LAYER GALLIUM ARSENIDE LAYER ETCH INDIUM GALLIUM
PHOSPHIDE LAYER
HYDROCHLORIC ACID ETCH LIQUID AQUEOUS SOLUTION

DERWENT-CLASS: L03 U11

CPI-CODES: L04-C07C;

EPI-CODES: U11-C07B; U11-C07C4A;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2001-069047

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